

2011 APPROPRIATIONS
ENERGY AND WATER APPROPRIATIONS BILL

Project Name and Location	Purpose	Amount	Recipient	Taxpayer Interests
Ala Wai Watershed - Oahu, Hawaii	The feasibility study is investigating and evaluating solutions to environmental degradation and flood damage problems throughout the entire Ala Wai watershed (Manoa, Palolo, and Makiki drainages, including Waikiki and surrounding areas). The objective is to develop a comprehensive integrated plan that recommends a coordinated approach by all Federal, State, and local agencies and the communities to improving the overall watershed health.	\$408,000	Hawaii Department of Land and Natural Resources	The improvements to the Ala Wai watershed will help control the potential of flooding to surrounding communities.
Barbers Point, Pacific Regional Visitor Center (RVC) Battery Randolph	The RVC serves as an educational resource, explaining the value and importance of the U.S. Army Corps of Engineers' (USACE) water resources and environmental programs to the general public through the use of exhibits, movies, interactive kiosks, and outreach programs.	\$330,000	U.S. Army Corps of Engineers, Honolulu District	Outreach provided by the RVC would help explain the missions of the Corps and the Army by demonstrating the partnerships between the Corps and the local governments and the community in the areas of navigation, storm damage reduction, ecosystem restoration, and military construction.

Project Name and Location	Purpose	Amount	Recipient	Taxpayer Interests
Development of High Yield Tropical Feedstocks and Biomass Conversion Technology for Renewable Energy Production and Economic Development- Statewide	The purpose of this project is to increase Hawaii’s energy security by developing high-yielding tropical feedstocks that are economically viable and sustainable. The project will assess the use of high-yield bioenergy crops as feedstocks for biofuel production and conduct net energy analyses for these and other feedstocks grown in Hawaii and the Pacific. Assess the potential of thermochemical and biochemical conversion of biomass into biofuels and bioproducts and the potential of these crops as a high-yielding feedstock for local production of liquid transportation fuels. Field trials will be conducted at large plantation and farm scales to determine economic, environmental and community impacts of tropical biomass production and renewable energy systems.	\$6,000,000	College of Tropical Agriculture and Human Resources, University of Hawaii at Manoa	Reduced dependence on fossil fuels is a national policy goal. Federal investments to expand the knowledge base on renewable sources of energy needed to realize this goal are warranted and require a consistency independent of the fluctuations in fossil fuel prices. Of the renewable energy alternatives, information on biofuels is most limiting since only recently has there been an emphasis on crops for energy rather than crops for food. Given the equally significant priority on food security, biofuel research must develop alternatives that do not compromise food security. Results from this project will provide the information needed to assess the economic viability of renewable energy production in Hawaii and the tropics, the impacts of bioenergy crop production systems on tropical environments, and the impacts of renewable energy systems on families and communities. Project will be conducted on the only commercial sugar plantation in Hawaii and at farm scale on the Island of Hawaii. Hawaii’s year round growing season produces the highest biomass production in the United States, and is an ideal location to determine the economic viability and environmental sustainability of biomass to energy systems.
Drought Emergency Assistance	This requests seeks drought emergency assistance. While recent rains have provided some temporary relief for the leeward sides of the islands of Hawaii and Maui, drought conditions continue to prevail throughout the entire State of Hawaii.	\$0	State of Hawaii	Emergency assistance is needed while state and local officials and private water resource managers devise and implement more permanent drought mitigation solutions.
Flood Plain Management Services to States, Hawaii, and Pacific Territories Program	This program provides guidance, analyses, and base flood elevations for members of the general public, including AE firms and private individuals requiring building permits in hurricane wave run-up zones.	\$800,000	U.S. Army Corps of Engineers, Honolulu District	Project provides valuable floodplain information accuracy and floodplain analyses for federal, state, and county agencies, and the U.S. Territories.

Project Name and Location	Purpose	Amount	Recipient	Taxpayer Interests
Hanapepe River Flood Control - Kauai, Hawaii	<p>An evaluation is being conducted under Public Law 84-99 to determine whether there is Federal interest in making the repairs and the determination is scheduled for November 2010. Honolulu District is conducting technical studies on a reimbursable basis to the Department of Public Works (DPW) to determine whether existing levees meet the Federal Emergency Management Agency's (FEMA) criteria for levee certification.</p>	\$200,000	Department of Public Works, County of Kauai	<p>Approximately 859 homes and commercial buildings are currently protected by the project. To date, the project has prevented more than \$23.7 million in projected damages, within the project area.</p>
Hawaii Energy Sustainability Program - Statewide	<p>The purpose of this project is to conduct critical research to enable increased penetration of renewable energy generation systems onto the electrical grid, e.g. high penetration of intermittent wind and solar technologies without significant curtailment of these resources.</p>	\$6,000,000	Hawaii Natural Energy Institute, University of Hawaii	<p>Hawaii's full complement of renewable energy resources (solar, wind, ocean, biofuel, and geothermal) and island specific isolated grids offers unparalleled opportunities to address issues associated with the high penetration of renewable energy technologies into electrical grid systems. Because of this unique venue, technical and policy issues associated with high penetration of renewable energy technologies are being felt first in Hawaii. The analytical models and enabling technologies validated under this program are critical to Hawaii's energy security. In addition, the information created and integration lessons learned will be directly transferable to other sections of the United States where these same high penetration issues arise. The results of this work are reported to the U.S. Department of Energy to ensure maximum availability of the information to other energy providers and governmental units. Additionally, the U.S. Department of Defense (DOD) is taking significant steps to reduce petroleum use at its facilities. The results of this program will also be useful to U.S. DOD to meet these objectives.</p>

Project Name and Location	Purpose	Amount	Recipient	Taxpayer Interests
Hawaii Regional Sediment Management	<p>The Hawaii Regional Sediment Management (HRSM) study incorporates all of Hawaiian Islands. Investigations of sediment management practices at stream mouths will ensure that the associated beach quality material is placed back into the littoral system in an effective and efficient manner. Also, HRSM investigations into the beneficial use of dredged material from ports and harbors will facilitate beach placement of the beach quality portion of the sediment. Post dredging clean-up of marginal material from maintenance dredging activities will also be investigated.</p>	\$1,000,000	U.S. Army Corps of Engineers, Honolulu District	Quantification of sediment resources and pathways will provide engineering design guidance necessary to restore vital beach resources in the most cost effective way.
Hawaii Renewable Energy Development Venture - Statewide	<p>The Hawaii Renewable Energy Development Venture works directly with businesses to commercialize energy innovations, including the development and demonstration of technologies to enable viable renewable energy systems in the State of Hawaii. Hawaii, with its isolation, extreme dependence on imported petroleum, high energy costs, and abundant access to a wide variety of renewable energy sources, holds significant potential for a major transformation to clean energy technologies.</p>	\$6,000,000	Pacific International Center for High Technology Research	<p>By supporting the development of the clean tech sector in Hawaii, this project will help to address a critical energy security need for the state and nation, and to support federal investments in the state and Pacific region. This project will also diversify the economic base of Hawaii, now predominantly dependent on tourism, and create highly skilled and well paying jobs for Hawaii residents. The transformation to clean energy will reduce emissions and other environmental impacts. Taxpayers will also benefit from reduced volatility in energy prices, making Hawaii a more attractive place for investment. Success in Hawaii will also benefit the nation as a whole, since clean energy solutions in Hawaii will have a high degree of applicability throughout the U.S.</p>

Project Name and Location	Purpose	Amount	Recipient	Taxpayer Interests
Hawaii Water Management - Statewide	The purpose of this project is to enhance water, energy, and food security in Hawaii by repairing and improving existing water systems and initiating new water system projects.	\$2,000,000	Hawaii Department of Agriculture	Energy Security is a national priority with an emphasis on reducing dependence on energy derived from fossil fuels. Century old irrigation systems developed and maintained by sugarcane and pineapple plantations provided rudimentary forms of renewable energy through biomass fueled generators to operate processing plants and provide excess electricity to the local grid as well as hydroelectric generators placed in strategic locations. This project contributes toward achieving the national energy security goal and also contributes to Hawaii's water and food security.
Hawaii Water Resources Study	The Hawaii Water Resources Act of 2000 (Public Law 106-566) provides for a comprehensive study of the water systems of Hawaii that were developed and formerly maintained by century old sugarcane plantations. There has been a rapid decline in the demise of these plantations such that, at the present time, only two plantations remain in the State. While the economic impact of plantation closures has been severe, these closures have had an equally devastating impact on the water resource systems previously maintained by sugarcane plantations. The year round growing season in Hawaii accelerates the deterioration of these systems. The Hawaii Water Resources Study is an essential and critical step in identifying future policy alternatives and the real and opportunity costs associated with these alternatives.	\$300,000	U.S. Bureau of Reclamation	Water is Hawaii's most critical resource issue. The Hawaii Water Resources Study is an essential and critical step in identifying future policy alternatives and the real and opportunity costs associated with these alternatives.

Project Name and Location	Purpose	Amount	Recipient	Taxpayer Interests
Heeia Watershed - Oahu, Hawaii	The reconnaissance study requested for the Heeia Watershed project in Fiscal Year 2011 is larger than coventionally accepted by the Administration, but is needed to address the comprehensive scope and extensive water resources problems that may surface in the watershed.	\$200,000	Nature Conservancy of Hawaii	The Heeia Watershed project will alleviate flooding and increase the economic and biological health of the Heeia area.
Hilo Deep Draft Harbor - Hilo, Hawaii	The Department of Transportation (DOT) is interested in modifying the limits of the Federal dredging to permit a local extension of Piers 2 and 3. The proposed DOT extension would accommodate the docking of larger cruise ships.	\$300,000	Harbors Division, Hawaii Department of Transportation	Modifications to the Hilo Deep Draft Harbor project will allow ships, cruise vessels, and freight carriers to dock and provide economic support for the County.
Hurricane Evacuation Studies, - Statewide	Work is currently underway by the Honolulu District and the U.S. Army Corps of Engineers Research and Development Center (ERDC) on the MMS for each of the counties within the State of Hawaii as well as the Hawaii State Civil Defense. The MMS will integrate the wave and surge data from the Pacific Island Land Ocean Typhoon (PILOT) program, the Surge & Wave Island Modeling Studies (SWIMS) model, the hurricane tracking program (HURREVAC) and other predictive models specific to each island jurisdiction into a consolidated program for use by local emergency planners.	\$300,000	Hawaii Department of Defense	These products are being designed as a real-time pre-disaster planning and operational tool which will allow local emergency planners to better identify and manage vulnerable local populations against water-related threats such as tropical cyclones, dam breaks and tsunamis.

Project Name and Location	Purpose	Amount	Recipient	Taxpayer Interests
Iao Stream Flood Control - Maui, Hawaii	<p>Numerous storm events of high velocity flows within the steeply sloped channel have occurred over the years and resulted in recurring damages to the stream channel, particularly to the right bank levee toe of the unlined section of the project. Certifying the existing project can withstand a 100-year frequency flood is required by the Federal Emergency Management Agency (FEMA). In its present condition, the project cannot be certified as providing 100-year flood protection. Construction of this project will make the project certifiable under FEMA.</p>	\$250,000	Department of Public Works, County of Maui	<p>This project protects the town of Wailuku from flooding. The project has also prevented more than \$24 million in damages.</p>
Inspection of Completed Works - Statewide	<p>The U.S. Army Corps of Engineers (USACE) inspects Federal flood protection projects which have non-Federal sponsors responsible for operation, maintenance, repair, replacement, and rehabilitation. The primary purposes of these inspections are to reduce the risk of loss of life and catastrophic damages; preserve the value of the Federal investment; and to encourage non-Federal sponsors to bear responsibility for their own protection. The Inspection of Completed Works (ICW) program assures sponsor compliance with existing agreements that the structures and facilities constructed by the United States for flood protection will be maintained and operated to obtain the maximum benefits. ICW funds routine and periodic inspections, Levee Safety, and other flood related activities until supplemental budgets are approved or other funding is made available.</p>	\$961,000	U.S. Army Corps of Engineers, Honolulu District	<p>The primary purposes of these inspections are to reduce the risk of loss of life and catastrophic damages; preserve the value of the Federal investment; and to encourage non-Federal sponsors to bear responsibility for their own protection.</p>

Project Name and Location	Purpose	Amount	Recipient	Taxpayer Interests
Kahuku Storm Damage Reduction - Oahu, Hawaii	At the request of the sponsor, the State of Hawaii, Department of Education, language was included in the Fiscal Year 2008 Energy and Water Appropriations Act, directing the Honolulu District to initiate Preconstruction Engineering and Design phase activities in support of local drainage/flood damage reduction features at the Kahuku High School and the surrounding community.	\$6,700,000	Hawaii Department of Education	This project an improved drainage system that will prevent further flooding at Kahuku.
Kahului Deep Draft Harbor - Maui, Hawaii	Hawaii Department of Transportation has requested USACE assistance in enlarging the existing turning basin and modifying the existing breakwater in order to expand their port facilities to accommodate the increasing demands being placed on the harbor may Maui's growing economy.	\$200,000	Harbors Division, Hawaii Department of Transportation	The Kahului Deep Draft Harbor project assists Maui's growing economy by expanding port facilities to accommodate the increasing demands being placed on the harbor.
Pacific Island Land Ocean Typhoon Experiment - State of Hawaii, Ipan, Guam, Caribbean	To continue the operations of the Pacific island land Ocean Typhoon Experiment Program (PILOT) at the Hawaii, Guam and Caribbean test sites.	\$1,000,000	Hawaii Department of Defense and the University of Hawaii	The continuation of the program will better serve the people with improved emergency planning.
Palmyra Ecosystem Restoration, Palmyra Atoll National Wildlife Refuge, Pacific Remote Islands Marine National Monument	To initiate the Pre-Constructon, Engineering and Design phase of this project in order to understand the consequences of any alteration to the current flow regime in the Palmyra lagoons and the resulting impact on reefs inside and outside of the Coral Gardens.	\$500,000	Nature Conservancy of Hawaii	To restore, preserve, and protect the ecosystem at the Palmyra Atoll, which will lead to increased marine life within the lagoons.
Planning Assistance to States, Hawaii and Pacific Territories Program	The objective of the Planning Assistance to States is to assist state and local governments in the preparation of comprehensive plans for the development of water and related land resources. In the case of the Honolulu District, annual Federal allotments must be used to support the PAS program in the State of Hawaii, American Samoa, Guam, and the Commonwealth of the Northern Mariana Islands.	\$1,000,000	U.S. Army Corps of Engineers, Honolulu District	The objective of the PAS program is to assist state and local governments in the preparation of comprehensive plans for the development of water and related land resources. These plans would also assist the Corps in the development of comprehensive flood risk management plans for each island in the State of Hawaii and territories.

Project Name and Location	Purpose	Amount	Recipient	Taxpayer Interests
Project Condition Survey - Statewide	The Fiscal Year 2011 proposed activities include: inspection of 25 navigation projects with protective breakwater structures, manage the District’s maintenance dredging program, conduct hydrographic condition surveys at 7 harbor sites, and install CEPD survey control benchmarks at 4 navigation projects.	\$604,000	U.S. Army Corps of Engineers, Honolulu District	The Commercial ports are the lifeline for these islands and are basically the sole means of transport of bulk cargo and commercial goods. This waterborne commerce is critical to the economy of the State of Hawaii, and its respective islands and the U.S. Territories. Other smaller harbors (subsistence, commercial, and recreational) serve island communities and are vital to the welfare of its people.
South Maui Watershed- Maui, Hawaii	The County of Maui is overseeing the growth in the South Maui Watershed area, and they have concerns that the areas’ resources may be adversely impacted; therefore, the investigation of the South Maui Watershed is a high priority. The County is seeking assistance from the U.S. Army Corps of Engineers to develop a coordinated approach to dealing with multiple water quality, erosion, and drainage problems over the broad geographic area.	\$300,000	County of Maui	The South Maui Watershed area is vital to the economy of Maui and more important for the preservation and maintenance of its natural resources.
Surge and Wave Island Modeling Studies	Island coasts and populations are extremely vulnerable to tropical storms, but existing methodologies for analyzing hurricane/typhoon waves were developed for mainland coasts. Islands have special concerns such as adjacent deep water, very large incident storm waves, and fringing coral reefs. Coastal inundation calculation methodologies for island coasts have not received attention commensurate with the importance and complexity of the processes. The SWIMS approach is to develop, improve, link, and validate the next generation models to realistically represent island wave and inundation processes.	\$1,000,000	University of Hawaii	This program will provide the State of Hawaii with better predictions to protect the shore design and structure.

Project Name and Location	Purpose	Amount	Recipient	Taxpayer Interests
Waiakea-Palai Streams Flood Damage Reduction - Island of Hawaii	The new Waiakea-Palai Streams Flood Damage Reduction project is being proposed for the Preconstruction Engineering and Design (PED) phase. The combined project would afford the opportunity to develop flood risk management measures in the shared drainage above Waiakea and Palai streams and would provide flood reduction benefits to both areas, theoretically reducing the costs required to mitigate flooding in each drainage basin separately.	\$300,000	Department of Public Works, County of Hawaii	Property owners will be saved from floods, while agricultural areas will benefit from the overflow of water.
Waimea River Flood Control - Kauai, Hawaii	Flooding occurred in Waimea on January 1, 2005 as a result from the river being high; therefore, closing the outfall gates, preventing storm water from draining into the river, and ponding the town. A study will be conducted under the Flood Plain Management Services (FPMS) program to determine if a pumping station is feasible to reduce interior drainage ponding.	\$125,000	County of Kauai	Provides flood protection to the Waimea community from periodic flooding of the Waimea River and approximately 614 homes and commercial buildings are currently protected by the project.
West Maui Watershed - Maui, Hawaii	To use the Hawaiian ahupuaa concept of resource management to identify recommended measures to solve West Maui's watershed problems, including aquatic, marine and terrestrial ecosystem degradation, threats to water supply quantity and quality, and storm damage	\$100,000	Forestry and Wildlife Division, Department of Land and Natural Resources	Ecological resources, including coral reefs, are valuable to the tourism and the economy of West Maui and the State of Hawaii.